Kennedy NASA Procedural Requirements

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Responsible Office: **Spaceport Integration and Services**

KSC HAZARD COMMUNICATION PROGRAM

National Aeronautics and Space Administration

John F. Kennedy Space Center

Change Log

Date	Revision	Description
04/15/14	Basic	New directive replacing KNPD 1800.2, KSC Hazard Communication Program
05/18/15	Basic-1	Administrative changes only to reflect change in name of directorate from Center Operations to Spaceport Integration and Services.
08/25/15	Basic-2	The course QG210OSH has been changed to QG320OSH. This course number was changed by the KISS contract.
11/22/16	Basic-3	Administrative changes only to reflect the change in contracts from Medical and Environmental Support Contract (MESC) to Kennedy Environmental and Medical Contract (KEMCON). Changed Public Affairs Office News Chief to KSC Communication Office News Chief. Removed acronyms from Table of Contents. Added hyperlinks to P.3 Authority section. Added hyperlinks to P.4 Applicable Documents and Forms.
05/15/2019	Basic-4	Extended document to July 15, 2019 in order to consolidate and disposition comments during review
7/29/19	A	Administrative Changes through document: Updated TOC with hyperlinks and new headings Updated hyperlinks throughout document Updated formatting throughout document Replaced KEMCON with generic title Kennedy medical and environmental contractor throughout document Preface P.2 Updated language in subparagraph a. P.4 Updated Forms and Document Titles P.6 Changed document revision number to Basic-4 Chapter 1 1.2.1 subparagraph c. Updated document number 313e to 313c 1.2.1 subparagraph g. Updated section to specify payload customers' requirements on accessing SDSs of hazardous materials 1.3 Changed section heading to Director, Procurement 1.4 Changed section heading to Director, Human Resources Chapter 2 2.1.3 Changed Kennedy Institutional Support Services (KISS) to generic contractor name Appendix A Administrative change to formatting Appendix B Removed KEMCON from acronym list

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PREFACE

P.1 PURPOSE

a. This Kennedy National Aeronautics and Space Administration (NASA) Procedural Requirements (KNPR) document contains the requirements for the implementation of the Kennedy Space Center (KSC) Hazard Communication Program. It provides both general and specific requirements for implementation of the Occupational Safety and Health Administration (OSHA) Hazard Communication Program at KSC. This KNPR does not in any way relieve various NASA organizations and their associated contractors of responsibility for the protection of personnel under their cognizance.

b. It is KSC's intent to provide a workplace free from hazards that may cause illness, physical harm, or death. To ensure such protection, the KSC Industrial Hygiene Officer (IHO) shall maintain a hazard communication program to make sure employees are provided the necessary information to work safely with hazardous materials.

c. The KSC IHO shall ensure compliance with OSHA hazard communication standards, manage and operate a comprehensive program to communicate hazard information, ensure the training of the workforce in the safe usage of hazardous materials, ensure the dissemination of Safety Data Sheet (SDS) information, and ensure the proper labeling of hazardous substances.

d. The requirements presented in this KNPR implement Federal OSHA regulations and NASA management policy for Industrial Hygiene (IH) programs. NASA, contractor management, and their organizations/programs/projects will supplement the provisions of this KNPR by implementation of internal policies and instructions, as needed. This KNPR is not intended to relieve contractors of their obligations under OSHA.

P.2 APPLICABILITY

a. This KNPR applies to all NASA organizational elements located at KSC and NASA-KSC facilities and operations at other locations. This includes NASA-KSC contractors, grant recipients, or parties to agreements only to the extent specified or referenced in the appropriate contracts, grants, or agreements.

b. In this KNPR, all mandatory actions (i.e., requirements) are denoted by statements containing the term "shall." The terms "may" or "can" denote discretionary privilege or permission, "should" denotes a good practice and is recommended, but not required, "will" denotes expected outcome, and "are/is" denotes descriptive material.

c. In this KNPR, all document citations are assumed to be the latest version unless otherwise noted.

P.3 AUTHORITY

a. 29 Code of Federal Regulations (CFR) 1910.1200, Hazard Communication

b. 29 CFR 1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories

c. 29 CFR 1926.59, Hazard Communication

d. 29 CFR 1960, Basic Program Elements For Federal Employee Occupational Safety And Health Programs And Related Matters

P.4 APPLICABLE DOCUMENTS AND FORMS

a. Federal Acquisition Regulation (FAR) 23.3, Hazardous Material Identification and Material Safety Data

b. Federal Standard (FED STD) 313E, Material Safety Data, Transportation Data and Disposal Data Furnished to Government Activities

c. NASA Procedural Requirements (NPR) 8715.3, NASA General Safety Program Requirements

d. Kennedy NASA Policy Directive (KNPD) 1800.1, Environmental Health Program

e. KNPR 1840.19, Kennedy Space Center Industrial Hygiene Programs

P.5 MEASUREMENT/VERIFICATION

Triennial audit of the KSC Occupational Health Program by the NASA Headquarters Office of the Chief Health and Medical Officer and interim KSC self-audits.

P.6 CANCELLATION

This document cancels KNPR 1840.1, Rev. Basic-4, KSC Hazard Communication Program.

/original signed by/

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Nancy P. Bray
Director, Spaceport Integration and Services

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CHAPTER 1. RESPONSIBILITIES

1.1 Industrial Hygiene Officer

1.1.1 IHO shall:

a. Develop and maintain a database of SDSs.

b. Provide hazard assessments for the use of toxic chemicals.

c. Provide environmental health consultation on KSC use of hazardous materials.

d. Determine hazardous substances to be restricted with regard to procurement and disposition.

e. Coordinate with institutional training to develop and update the content of any Government provided hazard communication training.

1.2 Heads of Primary Organizations

1.2.1 Heads of primary organizations shall:

a. Ensure development of logistics systems to manage receipt, distribution, and disposal of hazardous materials and implementation of procedures to accomplish the requirements of this KNPR.

b. Ensure proper labeling of incoming hazardous substances.

c. Acquire SDSs for items identified in FED STD 313E or listed in Appendix C.

d. Ensure hazardous materials are maintained and distributed in compliance with 29 CFR 1910.1200.

e. Provide hazard communication information to purchasers and downstream users of excess property.

f. Ensure contractors and tenant organizations operating in laboratories have a written Chemical Hygiene Plan where required by 29 CFR 1910.1450.

> *Note: Laboratories dedicated to calibration or production processes or that follow written procedures dedicated to quality control purposes are exempt from the Chemical Hygiene Plan requirement in accordance with (IAW) 29 CFR 1910.1450 (e.g., calibration labs).*

g. Ensure payload customers submit SDSs to the applicable host organization prior to the arrival of the hazardous materials at KSC.

(1) The payload customers must ensure the SDSs are available at the KSC locations where the hazardous materials are used.

(2) Payload customers are not required to submit SDSs for hazardous materials supplied by NASA KSC.

1.3 Director, Procurement

1.3.1 The Director, Procurement shall:

a. Incorporate proper contractual controls in procurements where hazardous substances are identified IAW FAR 23.3 and NPR 8715.3.

b. Incorporate contractual requirements for resident contractors to coordinate submission of hazardous material safety data to the KSC SDS archive Web site with the Kennedy environmental and medical contractor SDS program administrator.

1.4 Director, Human Resources

The Director, Human Resources shall provide hazard communication program training to Government employees and tenant contractors in accordance with their respective contracts.

1.5 Kennedy Space Center Communication Office News Chief

KSC Communication Office News Chief shall coordinate release of information on hazardous substances, such as a chemical spills, to the public and local community.

1.6 Civil Service Supervisors

1.6.1 KSC Civil Service Supervisors shall:

a. Ensure NASA employees who use or may otherwise be exposed to hazardous materials in their assigned work areas have access to SDSs for those hazardous materials.

(1) Where an SDS for a hazardous material is not available in the KSC SDS archive Web site, coordinate with the KSC SDS coordinator to obtain the SDS and have it added for Center-wide use.

(2) If an employee does not have access to a networked computer workstation, provide an alternate means to view SDSs, such as a binder maintained with SDSs of materials used at the work location.

b. Review, with their employees, hazards associated with the hazardous materials.

c. Ensure appropriate hazard communications training is included and completed as a part of the employees' training plans.

d. Ensure compliance with provisions for safe use identified on the SDS or otherwise required by KSC fire, safety, or environmental health organizations.

e. Ensure hazardous materials are kept in manufacturer's labeled containers and, when transferred, are kept in containers meeting the labeling requirements of 29 CFR 1910.1200.

1.7 Civil Service Employees

1.7.1 KSC Civil Service employees shall:

a. Become familiar with the hazard information provided on the SDSs for hazardous materials with which they may work or to which they may be exposed.

b. Notify the Civil Service contact on the KSC SDS archive Web site of any illegible or incomplete SDSs.

c. Take necessary precautions, including use of applicable protective equipment and following safe work practices and procedures, when working with or around hazardous materials.

d. Report all potential problems regarding the use of hazardous substances to immediate supervisors.

e. Review the SDSs for hazardous materials, when required to work in the vicinity of contractor operations using such materials, by accessing the KSC SDS archive Web site or by requesting the SDS from the contractor organization responsible for the operation.

1.8 Kennedy Environmental and Medical Contractor Industrial Hygiene Office

1.8.1 The Kennedy environmental and medical contractor IH Office shall:

a. Operate the KSC SDS archive Web site.

b. Provide SDS record entry and management of SDSs submitted by NASA and its contractors and tenants at KSC.

c. Provide consultation on hazards and necessary control measures for the safe use of hazardous materials IAW KNPR 1840.19.

CHAPTER 2. HAZARD COMMUNICATION PROGRAM

2.1 Employee Training

2.1.1 All employees shall have hazard communication training through the System for Administration, Training, and Educational Resources for NASA (SATERN) or receive classroom hazard communication training upon job placement.

2.1.2 SATERN training is available for general office workers (KSC Hazard Communication [Office Workers], KSC-003-13) or for employees assigned to work in or requiring regular access to shops and labs or who may otherwise be required to use hazardous materials in the course of their work (KSC Hazard Communication [Chemical Users], KSC-003-07). Recurring training for chemical users is provided as a triennial refresher.

2.1.3 The KSC institutional support services contractor provides classroom hazard communication training, OSHA Hazard Communication Standard, QG320OSH.

2.1.4 NASA employees assigned to work in contractor-operated facilities shall attend contractor required hazard communication training, if applicable.

2.1.5 Training coordinators are responsible for tracking completion of the hazard communication training.

2.1.6 The SATERN or the KSC Training and Certification Records System training databases will be used to record and track required hazard communication training.

2.2 Safety Data Sheets

2.2.1 OSHA regulations require that every employee have "prompt access" to SDSs. To meet this requirement, SDSs for hazardous materials used by NASA and NASA contractors are available online on the KSC SDS archive Web Site. The Web site provides a searchable database of SDSs for hazardous materials used at KSC and is available for use by all KSC employees with access to a Web-based browser.

2.2.2 A list of hazardous materials requiring provision of SDSs is identified in Appendix C.

2.2.3 Where a Civil Service organization or NASA contractor is a manufacturer or formulator as defined in 29 CFR 1910.1200, a SDS will be prepared IAW the OSHA requirements. If assistance is needed in preparing a SDS, notify the appropriate contact listed on the KSC SDS archive Web Site.

2.3 Container Labeling

2.3.1 OSHA requires that the manufacturers, formulators, and importers of hazardous materials provide proper labeling of any containers shipped to downstream users. If a material is transferred from the original container into another container, OSHA requires the new container must have an appropriate label. NASA tenants, contractors, and Civil Service organizations shall ensure the proper labeling of containers under their control.

2.3.2 Where a Civil Service organization or NASA contractor is a manufacturer or formulator as defined in 29 CFR 1910.1200, container labels or placards will be prepared IAW the OSHA requirements.

2.3.3 If labels on existing containers are missing or illegible, replacement labeling must be obtained and applied to the container. Requirements for labeling containers of chemicals used in laboratories are found in 29 CFR 1910.1450.

2.3.4 In addition to the SDS inventory, the KSC SDS archive Web Site provides users the ability to create and print OSHA and Global Harmonized System-compliant container labels to create lists of hazardous chemicals used at KSC. If assistance is needed in replacing deficient, damaged, or missing labels, notify the appropriate contact listed on the KSC SDS archive Web Site.

APPENDIX A. DEFINITIONS

Container: Any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or chemical transfer pipe that contains a hazardous chemical. Engines, fuel tanks, or other operating systems in vehicles are not considered containers.

Hazardous Substance: Any chemical that is a physical or a health hazard. These substances may consist of pure chemicals or mixtures of chemicals.

Health Hazard (IAW 29 CFR 1910.1200): A chemical for which there is statistically significant evidence, based on at least one study conducted IAW established scientific principles, that acute or chronic health effects may occur in exposed employees. The term "health hazard" refers to substances such as irritants, corrosives, sensitizers, carcinogens, and toxins that can damage or adversely affect the function of the lungs, skin, eyes, mucous membranes, or other organ systems. Appendix A of the regulation 29 CFR 1910.1200 provides further definitions and explanations of the scope of health hazards covered by this section, and Appendix C of the regulation describes the criteria to be used to determine whether or not a chemical is to be considered hazardous for the purposes of this standard.

Physical Hazard: (IAW 29 CFR 1910.1200): A chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, an explosive, an organic peroxide, or an oxidizer, or that it is flammable, pyrophoric, unstable (reactive), or water reactive.

Safety Data Sheet (also Material Safety Data Sheet): Written or printed material concerning a hazardous chemical that is prepared IAW 29 CFR 1910.1200(g).

APPENDIX B. ACRONYMS

CFR	Code of Federal Regulations
FAR	Federal Acquisition Regulation
FED STD	Federal Standard
IAW	In Accordance With
IH	Industrial Hygiene
IHO	Industrial Hygiene Officer
KNPD	Kennedy NASA Policy Directive
KNPR	Kennedy NASA Procedural Requirement
KSC	Kennedy Space Center
NASA	National Aeronautics and Space Administration
NPR	NASA Procedural Requirements
OSHA	Occupational Safety and Health Administration
SDS	Safety Data Sheet
SATERN	System for Administration, Training, and Educational Resources for NASA

APPENDIX C. COMMODITIES WHICH MAY CONTAIN HAZARDOUS CHEMICALS

Abrasives	Laboratory Reagents
Acids	Lubricants
Adhesives	Metal Powder
Antifoaming Agents	Metal Salts
Antifreeze Agents	Metal Stock
Anti-oxidants	Oils
Asphalts	Oxidizers
Batteries	Paints
Bleaches	Paint Removers
Catalysts	Pesticides
Caustics	Photocopy Chemicals
Chelating Agents	Photographic Chemicals
Cleaning Agents	Pigments
Compressed Gases	Plasters
Concrete Mixes	Plasticizers
Corrosion Inhibitors	Plastic Resins
Cryogenic Liquids	Polishes
Curing Agents	Preservative Chemicals
Degreasing Agents	Propellants
Desiccants	Protective Coatings
Dyes	Refrigerants
Electroplating Chemicals	Rust Removers
Emulsifying Agents	Sanitizing Agents
Explosives	Scrap Metal
Fertilizers	Sealants
Fire Extinguishing Chemicals	Solders
Fire Retardant Chemicals	Solder Fluxes
Foaming Agents	Solvents
Fuels	Sterilizing Agents
Fumigants	Tars
Fungicides	Thermal Insulation
Galvanizing Agents	Vulcanizing Agents
Glues	Waterproofing Agents
Heat Transfer Fluids	Water Treatment Chemicals
Herbicides	Waxes
Hydraulic Fluids	Welding fluxes
Hypergolic Chemicals	Welding Rods
Inks	Wood Preservatives

Exempted Items	
Cosmetics	Office Supplies
Prescription Drugs	Personal Consumer Products
Foods	
Note: This exclusion applies only to those items that do not expose employees to hazards under their normal conditions of use. The exclusion does not apply when these items are used in large quantities or when used in repetitive operations in such a manner to create a hazard to the user.	